



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:	)	Attorney Docket No. 58764.000039
Elena BABIYCHUK et al.	)	Art Unit: 1638
Application No.: 10/705,197	)	Examiner: Unassigned
Filed: November 12, 2003	)	

For: METHOD AND MEANS TO MODULATE PROGRAMMED CELL DEATH IN  
EUKARYOTIC

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with 37 C.F.R. §§ 1.56, 1.97, and 1.98, Applicants respectfully request consideration of the reference listed on the attached Form PTO/SB/08A. Since copies of the cited references were previously cited in prior U.S. Patent Application No. 09/118,276 (Attorney Docket No. 58764.000003), copies of the cited references are not being submitted herewith. However, copies will be forwarded at the request of the Examiner.

Applicants respectfully point out that the submission of the listed documents in this Information Disclosure Statement is not an admission that they are prior art or that they are material to patentability of any claims of the application. Also, the submission of this Information Disclosure Statement is not an indication that a search has been made.

Applicants respectfully request that the Examiner consider the references cited on the Form PTO/SB/08A and that the Examiner indicate that the references have been

considered in this application by returning a copy of the Form PTO/SB/08A with the Examiner's initials in the left column per MPEP 609.

This IDS is submitted prior to the issuance of a first Office Action on the merits; therefore, it is believed that no fees are required in connection therewith. If any fees are necessitated by the filing of this Information Disclosure Statement, please charge the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,  
HUNTON & WILLIAMS LLP

By:

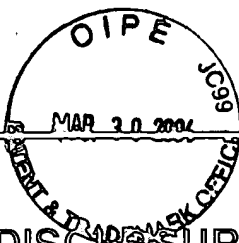


David H. Milligan  
Registration No. 42,893

Hunton & Williams, LLP  
1900 K Street, N.W., Suite 1200  
Washington, D.C. 20006-1109  
(202) 955-1500 (Telephone)  
(202) 778-2201 (Facsimile)

Dated: March 30, 2004

DHM/sdw



Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Application Number 10/705,197

Filing Date November 12, 2003

First Named Inventor Elena BABIYCHUK et al.

Art Unit 1638

Examiner Name Unassigned

Sheet 1 of 4

Attorney Docket Number 58764.000039

**U.S. PATENT DOCUMENTS**

*Examiner Initials	Cite No.	DOCUMENT NUMBER Number - Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1.	US 2001/0011381	08-02-01	Babiychuk et al.	
	2.	US 6693185	02-17-2004	Babiychuk et al.	

**FOREIGN PATENT DOCUMENTS**

*Examiner Initial	Cite No.	FOREIGN PATENT DOCUMENT		Publication Date MM-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	TRANSLATION	
		Country Code:	Number - Kind Code (if known)				YES	NO
	3.	WO	97/06267	02-1997	De Block			
	4.	WO	99/37789	07-1999	Pramod et al.			

**NON-PATENT LITERATURE DOCUMENTS**

*Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	TRANSLATION	
			YES	NO
	5.	BOSHER et al., "RNA Interference Can Target Pre-mRNA: Consequences for Gene Expression in a Caenorhabditis elegans Operon", Nov. 1999, Genetics Vol. 153, pp. 1245-1256		
	6.	KUEPPER, J. H. et al., Molecular genetic systems to study the role of poly(ADP-ribosyl)ation in the cellular response to DNA damage, Biochimie, Vol. 77, No. 6, 1995, pp. 450-455		
	7.	LAUTIER, D. et al., Molecular and biochemical features of poly (ADP-ribose) metabolism, Molecular and Cellular Biochemistry, Vol. 122, No. 2, 26 May 1993, pp. 171-193		
	8.	JEGGO, P. A., DNA repair: PARP - another guardian angel?, Current Biology, Vol. 8, No. 2, January 1998, pp. R49-R51		
	9.	AMOR, Y. et al., The involvement of poly (ADP-ribose) polymerase in the oxidative stress responses in plants FEBS Letters, Vol. 440, No. 1998, pp. 1-7		

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute for form 1449A/PTO		<b>Application Number</b>	10/705,197		
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)		<b>Filing Date</b>	November 12, 2003		
		<b>First Named Inventor</b>	Elena BABIYCHUK et al.		
		<b>Art Unit</b>	1638		
		<b>Examiner Name</b>	Unassigned		
<b>Sheet</b>	2	<b>of</b>	4	<b>Attorney Docket Number</b>	58764.000039
<b>NON-PATENT LITERATURE DOCUMENTS</b>					
*Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			TRANSLATION
	10.	BABIYCHUK, E. et al., Higher plants possess two structurally different poly (ADP-ribose) polymerases, The Plant Journal, Vol. 15, No. 5, September 1998, pp. 635-645			
	11.	MAHAJAN et al., Purification and cDNA Cloning of Maize Poly (ADP)-Ribose Polymerase, Plant Physiol. (1998) 118: 895-905			
	12.	BABIYCHUCK et al., GenBank database entry AJ222589, Higher Plants Possess Two Poly (ADP-ribose) Polymerases			
	13.	BABIYCHUCK et al., GenBank database entry AJ222588, Higher Plants Possess Two Poly (ADP-ribose) Polymerases			
	14.	CHEN et al., Poly (ADP-ribose) polymerase in plant nuclei, Eur. J. Biochem. 224 (1994), pp. 135-142			
	15.	du MURCIA et al., Poly (ADP-ribose) polymerase: a molecular nick-sensor, Trends Biochem. Sci., Elsevier Science Ltd., April 1994, pp. 172-176			
	16.	DING et al., Deletion of Ploy (ADP-ribose) Polymerase by Antisense RNA Expression Results in a Delay in DNA Strand Break Rejoining, Vol. 267, No. 18, The Journal of Biological Chemistry, June 25, 1992, pp. 12804-12812			
	17.	ELLIS et al., Mechanisms and Functions of Cell Death, Annual Reviews Cell Biology, July 1991, pp. 663-698			
	18.	HELLER et al., Inactivation of the Poly (ADP-ribose) Polymerase Gene Affects Oxygen Radical and Nitric Oxide Toxicity in Islet Cells, Vol. 270, No. 19, The Journal of Biological Chemistry, May 12, 1995, pp. 11176-11180			
	19.	IKEJIMA et al., The Zinc Fingers of Human Poly (ADP-ribose) Polymerase Are Differentially Required for the Recognition of DNA Breaks and Nicks and the Consequent Enzyme Activation, Vol. 265, No. 35, The Journal of Biological Chemistry, December 15, 1990, pp. 21907-21913			
<b>EXAMINER SIGNATURE</b>			<b>DATE CONSIDERED</b>		
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.					

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

**Application Number****10/705,197****Filing Date****November 12, 2003****First Named Inventor****Elena BABIYCHUK et al.****Art Unit****1638****Examiner Name****Unassigned****Sheet****3****of****4****Attorney Docket Number****58764.000039****NON-PATENT LITERATURE DOCUMENTS**

*Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	TRANSLATION	
	20.	KÜPPER et al., Inhibition of Poly(ADP-ribose)ation by overexpressing the Polymerase DNA-binding Domain in Mammalian Cells, Vol. 268, No. 31, The Journal of Biological Chemistry, November 5, 1990, pp. 18721-18724		
	21.	LAZEBNIK et al., Cleavage of poly (ADP-ribose) polymerase by a proteinase with properties like ICE, Vol. 371, Nature, September 1994, pp. 346-347		
	22.	LEPINIEC et al., Characterization of an <i>Arabidopsis thaliana</i> cDNA homologue to animal poly (ADP-ribose) polymerase, Federation of European Biochemical Societies, 1995, pp. 103-108		
	23.	LINDAHL et al., Post-translational modification of poly (ADP-ribose) polymerase induced by DNA strand breaks, Trends Biochem. Sci. Elsevier Science Ltd., April 1995, pp. 405-411		
	24.	MÉNISSIER de MURCIA et al., Requirement of Poly (ADP-ribose) polymerase in recovery from DNA damage in mice and in cells, Vol. 94, Proc. Natl. Acad. Sci., USA, Cell Biology, July 1997, pp. 7303-7307		
	25.	MOLINETE et al., Overproduction of the poly (ADP-ribose) polymerase DNA-binding domain blocks alkylation-induced DNA repair synthesis in mammalian cells, Vol. 12, The EMBO Journal, 1993, pp. 2109-2117		
	26.	O'FARRELL, ADP-ribosylation reactions in plants, Biochemie 77, 1995, pp. 486-491		
	27.	PENNELL et al., Programmed Cell Death in Plants, Vol. 9, The Plant Cell, July 1997, pp. 1157-1168		
	28.	PUCHTA et al., Induction of intrachromosomal homologous recombination in whole plants, The Plants Journal, 1995, pp. 203-210		
	29.	SCHREIBER et al., The human poly (ADP-ribose) polymerase nuclear localization signal is a bipartite element functionally separate from DNA binding and catalytic activity, Vol. 11, No. 9, The EMBO Journal, 1992, pp. 3263-3269		
	30.	SHOJI et al., Involvement of poly (ADP-ribose) syntheses in transdifferentiation of isolated mesophyll cells of zinnia elegans into tracheary elements, Plant Cell Physiol., 1997, pp. 36-43		

**EXAMINER SIGNATURE****DATE CONSIDERED**

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT***(use as many sheets as necessary)***Application Number****10/705,197****Filing Date****November 12, 2003****First Named Inventor****Elena BABIYCHUK et al.****Art Unit****1638****Examiner Name****Unassigned****Sheet****4****of****4****Attorney Docket Number****58764.000039****NON-PATENT LITERATURE DOCUMENTS**

*Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	TRANSLATION	
	31.	SMULSON et al., Requirement for the expression of poly (ADP-ribose) polymerase during the early stages of differentiation of 3T3-L1 preadipocytes, as studied by antisense RNA induction, Vol. 270, No. 1, The Journal of Biological Chemistry, January 6, 1995, pp. 509-520		
	32.	WANG et al., Apoptosis: a functional paradigm for programmed plant cell death induced by a host-selective phytotoxin and invoked during development, Vol. 8, The Plant Cell, March 1996, pp. 375-391		
	33.	WANG et al., Mice lacking ADPRT and poly (ADP-ribose)ation develop normally but are susceptible to skin disease, Genes & Development, 1995, pp. 509-520		
	34.	WANG et al., PARP is important for genomic stability but dispensable in apoptosis, Genes & Development, 1997, pp. 2347-2358		
	35.	WILLMITZER et al., Nitric oxide activation of poly (ADP-ribose) synthetase in neurotoxicity, Vol. 263, Science, February 4, 1994, pp. 687-689		

**EXAMINER SIGNATURE****DATE CONSIDERED**

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.